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NOTES ON GEOGRAPHIC DISTRIBUTION

First records of *Tovomita stergiosii* Cuello (Clusiaceae: Clusieae) in Brazil

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ABSTRACT: New records of *Tovomita stergiosii* Cuello, a species previously recorded for Peruvian and Venezuelan Amazon, are presented for Brazil. We present a distribution map, as well as comments and illustrations on taxonomic related species.

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Clusiaceae Lindl. comprises 14 genera and about 600 species predominantly distributed in the tropics worldwide (Stevens 2014). The family is currently divided into three tribes: Garcinieae Choisy, Symphoineae Choisy, and Clusieae Choisy, the later including *Clusia* L., *Chrysochlamys* Poepp., *Dystovomita* (Engl.) D'Arcy, *Tovomita* Aubl., and *Tovomitopsis* Planch. & Triana (Ruhfel *et al.* 2013).

Tovomita is represented by *ca.* 45 species (Cuello 2003) distributed throughout Neotropical rainforests, which 30 of them are found within the Brazilian Amazon and Atlantic Forests (Bittrich *et al.* 2014). The genus is characterized by dioecious trees and shrubs, in which pistillate specimens show smaller and fewer flowers than staminate specimens. Leaves are gathered on short branches, yellowish latex is common (Gentry 1997), inflorescences are cymose, terminal, and fruits are fleshy capsules (Cuello 2003).

During visits to northeastern and southeastern herbaria in Brazil (acronyms follow Thiers 2014): ALCB, ASE, BAH, CEPEC, CESJ, CVRD, HB, HRB, HRJ, HST, HUEFS, HURB, IPA, JPB, MAC, MBML, PEUFR, R, RB, SP, SPF, UB, UEC, UESC, UFP, UFRN, VIES and HST (not indexed: Sérgio Tavares Herbarium, Recife-PE), for the elaboration of the monograph of *Tovomita* from the Atlantic Forest, new records were found of *Tovomita stergiosii* Cuello from the Brazilian Amazon.

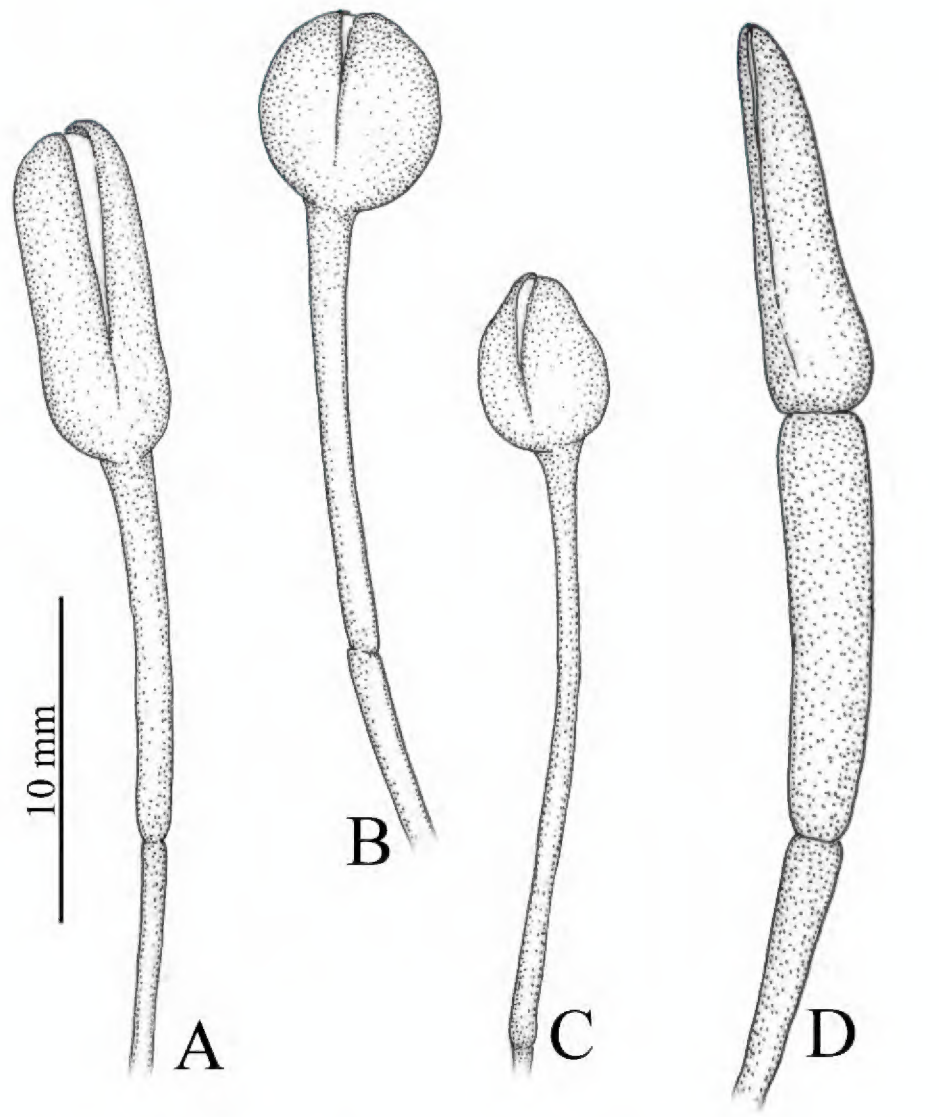

FIGURE 1. Floral buds of staminate flower of *Tovomita* species. A. *T. fructipendula* (L. Marinho *et al.* 457); B. *T. glazioviana* (L. Marinho *et al.* 602); C. *T. stergiosii* (A. Ducke 25048); D. *T. stylosa* (M. Correa & E. Montenegro 9672).

Tovomita stergiosii Cuello, *Novon* 13: 34–36. 2003.

Tovomita stergiosii is easily recognized by its white latex, lanceolate to linear leaves, pedicel elongated, floral buds ovate and mucronulate at apex in staminate flowers, not mucronulate in pistillate flowers, stamens of staminate flowers and staminodes of pistillate flowers reduced in number to 20 (Cuello 2003).

This species is morphologically related to *Tovomita brasiliensis* (Mart.) Walp. [=*Tovomita fructipendula* (Ruiz & Pav.) Cambess.], which is recorded from Brazil, Colombia and French Guiana. Foliar characters pointed as differences between these two by Cuello (2003) are not consistent, once *T. fructipendula* (Figure 1A) shows a remarkable range in those characters throughout populations in the Amazon and Atlantic Forests. However, the shape of floral buds on staminate flowers is crucial for identifying it. This species is also morphologically related to *T. glazioviana* Engl. (Figure 1B) and *T. stylosa* Hemsl. (Figure 1D), and their morphological differences are presented on Table 1.

Tovomita stergiosii was only previously cited for the western portion of Imeri and Madeira provinces (Cuello 2003; Morrone 2014) in the territories of Venezuela and Peru, respectively. These provinces are remarkably known for showing high rates of endemism for different taxa, representing different biogeographic units in the Neotropics (Morrone 2014). Our data represent a wider

Table 1. Morphological characters used to distinguish Tovomita stergiosii from closely related species.

	T. fructipendula	*T. glazioviana*	*T. stergiosii*	*T. stylosa*
Distribution	Amazon and Atlantic Forest	Atlantic Forest	Amazon Forest	Amazon and Atlantic Forest (Caribbean coast)
Pedicel in both flowers	short (10–18 mm long)	short (6–20 mm long)	elongate (20–25 mm long)	short (6–7 mm long)
Floral bud shape in staminate flowers	oblong with the apex rounded (5–9 mm long)	orbicular with the apex rounded (5–6 mm long)	ovate with the apex mucronulate (3–4 mm long)	oblong with the apex acute (6–10 mm long)
Length and number of stamens	long, *ca.* 50 (4–7 mm long)	long, *ca.* 50 (4–4.5 mm long)	reduced, *ca.* 20 (2.5–3.5 mm long)	long, *ca.* 50 (7–9 mm long)
Fruit shape	pyriform	orbicular	pyriform	orbicular

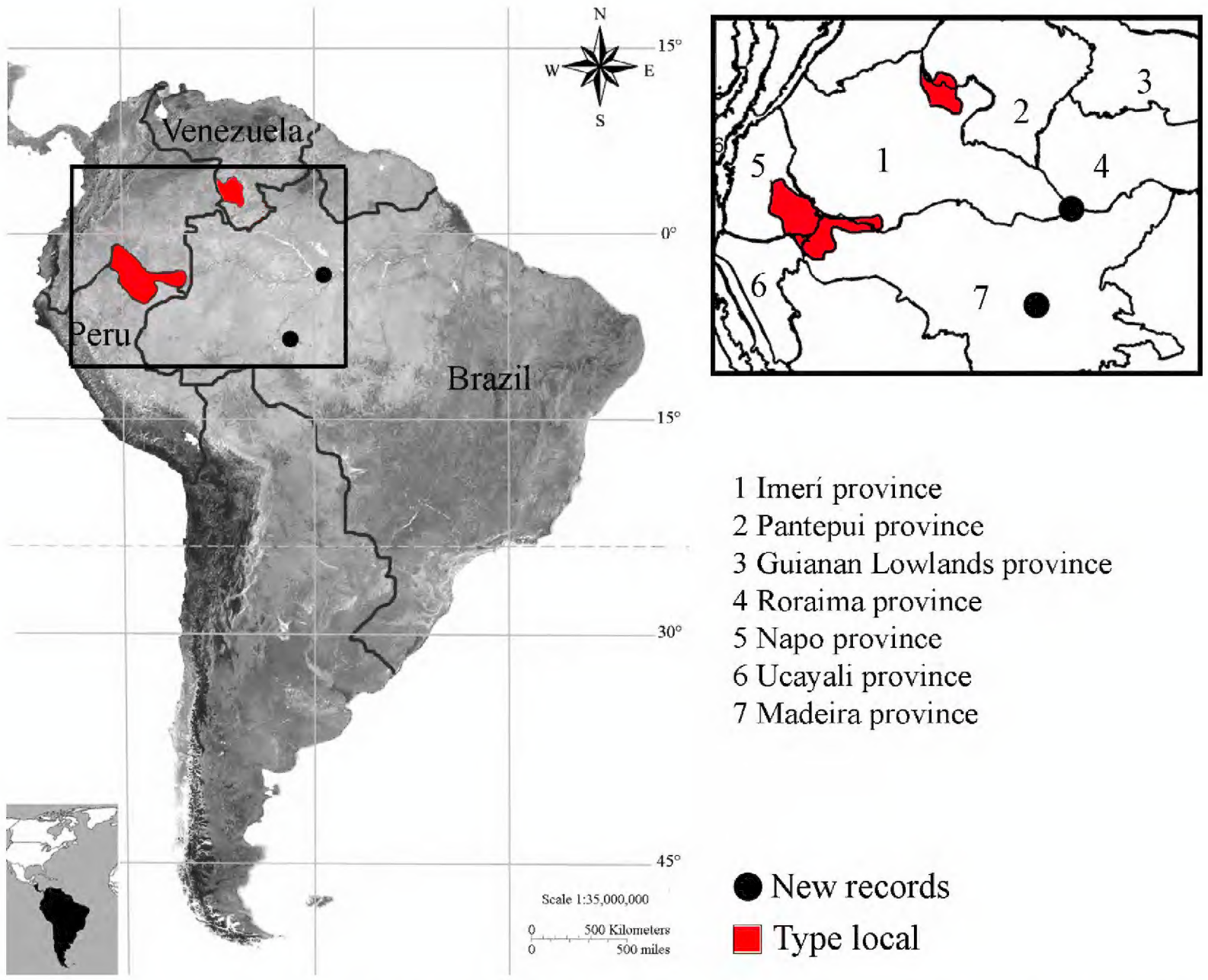

Figure 2. Distribution map of *Tovomita stergiosii* in South America. In detail the biogeographic provinces following Morrone (2014), showing the new records in Imeri (in Boreal Brazilian dominion) and Madeira provinces (in South Brazilian dominion) (black circles).

range of distribution of this species in these provinces (Figure 2), as well as its first records in Brazilian territory within a conservation unit (*i.e.,* Ducke Reserve).

Specimens examined: **Brazil:** Amazonas: Alto Rio Negro, 14 October 1932, *A. Ducke 25048* (RB); Manaus, 1938, *A. Ducke 21264* (RB); Rio Uarpés (= Uapés), s/d, *R. Spruce 2458* (RB); Reserva Florestal Ducke, Igarapé do Tinga, 13 August 1993, *J.E.L.S. Ribeiro et al. 1143* (UEC); Reserva Florestal Ducke, Manaus-Itacoatiara, km 26 (02°0531′ S, 59°58′ W), 28 March 1995, *A. Vicentini et al. 928* (UEC). Humaitá, estrada Humaitá-Jacarecanga, km 45, rio Maici-Mirim (07°45′ S, 62°32′ W), 19 June 1982, *L.O.A. Teixeira et al. 1241* (RB).

Specimens previously cited in literature: **Venezuela:** Território Federal Amazonas: Atapabo, Alto Río Orinoco, Caño Tama Tama, 2 km from E of Tama Tama, 3 March 1990, *G. Aymard & L. Delgado 8423* (MO, PORT, VEN); Casiquiare, Río Casiquiare, Laguna de Paciva and vicinity, 8 February 1991, *M. Colella, J. Velázco, E. Guayamare & S. Camico 2016* (NY, PORT); Río Sipapo, surroundings of Cerro Pelota, 20 February 2001, *A. Castillo & B. Camaripano 8362* (PORT, VEN). **Peru:** Loreto: Maynas, Iquitos, Río Nanay, Quebrada de Momón, surroundings of caserío de San José, August 1984, *M. Rimachi 7616* (MO); Río Nanay, two bends below entrance to Mapa Cocha, 14 January 1976, *S. McDaniel & M. Rimachi 20466* (MO); vicinity of Iquitos (collection data lost), 1977, *J. Revilla 3610* (MO); Río Mamón near Río Nanay, 1 September 1972, *T. Croat 19887* (MO).

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